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Title: Viewgraphs for 20 HeV Proton Beam

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Intended for: 2 Viewgraphs for beam instrumentation colleagues

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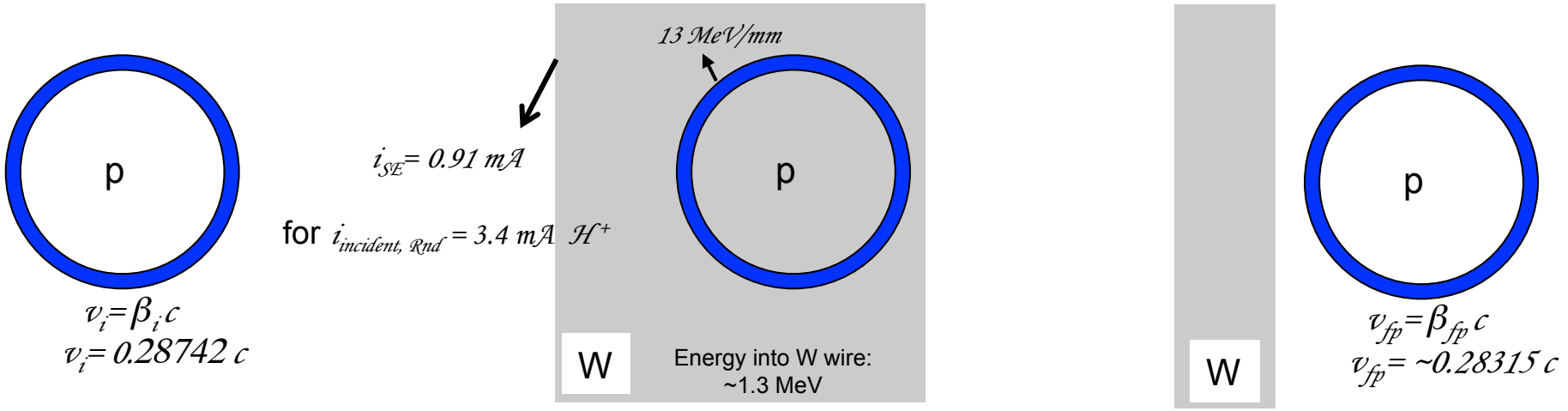
41.3-MeV H^+ beam interacts with a W sense wire – Sternglass theory for amount of SE current.



- **Initial H^+ beam at tank #3 input: nom. 41.3353 MeV**
  - ~1 secondary electron for every 3.8 incident protons impinging on wire material
    - Stopping Power = ~132 MeV/cm in W; Range (CSDA) = ~0.19 mm in W
- **H^+ beam at spatial peak, 0.269 SE current for a 0.1-mm W wire**
  - 2.47- X 1.31-mm (1.89 mm – averaged round beam), 12.75 mA (TDCM001), 4-Hz X 0.15-ms, H+IP gated beam

H^+ beam at 03WS001 location; Jan 23 data

- **Observed *dq* and *dt*: average of 14.4- or 10.3-nC in 140 μs, Navg = 1, 4-Hz X 0.15-ms beam or 0.088 mA**
  - Observed 12.75 mA_{pk} at TDCM001
    - Rms width: 2.47 mm (Hor) X 1.31 mm (Ver)
  - Observed current: ~0.088 mA at spatial peak
    - Observation, ~1/10 current of Sternglass theory (compared to 0.91 mA)
    - Negative distribution